

# *[SPINDLE MOTOR AND DISK DRIVE FURNISHED THEREWITH]*

## **Abstract**

In a spindle motor utilizing dynamic-pressure bearings having a full-fill structure, a bearing configuration that balances and sustains at or above atmospheric pressure the internal pressure of the bearing oil. Thrust and radial bearing sections are configured within oil-filled bearing clearances in between the rotor, the shaft, and a shaft-encompassing hollow bearing member. A communicating passage one end of which opens on, radially inwardly along, the thrust bearing section is formed in the bearing member. Either axial ends of the bearing clearance in between the bearing member and shaft communicate through the passage. The communicating passage enables the oil to redistribute itself within the bearing clearances. Pressure difference between the axial upper and lower ends of the oil retained in between the bearing member and the shaft is compensated through the communicating passage, preventing incidents of negative pressure within the oil and of over-lift on the rotor. And an annular protruding portion is formed on at least one of the end face of the

bearing member and the flat face of the rotor at radially inward portion of the thrust bearing section.